Biological Molecules Quiz – Shanukha Thivyanath

Q1: What does a sugar and a nitrogenous base make in a nucleotide?

1. Phosphate group c) Nucleoside
2. Phodiester bond d) Polynucleotide chain

Q2: The General composition of an amino acid is compromised of:

1. -NH₂, -COOH, and a R-side group
2. A central atom of C, an amino group, a carboxyl group, a hydrogen atom, and an R-side group.
3. An assembly of complex proteins
4. R group, hydrogen atom and a central atom

Q3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a polar and non-polar end. The non-polar end consists of glycerol bonded to two fatty acids.

1. Saturated fat c) Triglyceride
2. Unsaturated fat d) Phospholipid

Q4: The basic Steroid structure is compromised of:

1. Phosphate group linked to several fatty acid chain
2. Carboxyl group linked to a ring of hydrocarbons
3. Glycerol linked to 3 fatty acid chains
4. Lipid that is made of 4 carbon rings

Q5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is frequently a folded β pleated sheet or a spiral a-helix.

1. The tertiary structure c) The Primary Structure
2. The Secondary structure d) The Quaternary Structure

Q6: What are Purines and Pyrimidines? Compare and contrast.

Ans: Both are general types of nitrogenous bases. Both have high concentrations of Nitrogen. Purine bases are 2 ringed organic structures while Pyrimidine bases are single ringed structures. Pyrimidine has 2 bases Uracil, Thymine, and Cytosine, while Purine has 2; Adenine and Guanine.

Q7: What are waxes? Give an example.

Waxes are lipids that are formed when alcohol or carbon rings are joined to fatty acid chains. Since they are large lipid molecules, they are extremely non-polar, therefore hydrophobic. This makes them resistant to water. Example: Cutin is a wax which is present on leaves, fruits and stems of plants.